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ABSTRACT

This essay examines characteristics of high risk students, institutional problems related to their presence in schools, and various solutions to these problems that have been implemented at the secondary, junior college, and collegiate levels. Areas discussed in which high risk students may differ from other students include cognitive ability, task motivation and task performance, cultural aspiration and its relationship to educational attainment, locus of control, and self-esteem. The responsibility of schools in directing their programs toward problematic students is considered. Major elements that must be addressed or accounted for in an academic curriculum for high risk students are identified. Among these are: (1) a wide range of cognitive skills, (2) reasoning ability, (3) communication skills, (4) nontraditional instructional methods, (5) competency-oriented disciplinary and interdisciplinary studies, (6) the revival of a "general education" curriculum, (7) self-actualization within the academic experience, (8) integration of the students' social environment into schooling, (9) transitional reentry programs, and (10) retraining programs for dropouts. Finally, a program model for the education of high risk students at the secondary and postsecondary levels is proposed. The model comprises curricular concerns and evaluation practices, school organization and administration, personnel and student concerns, and access to and articulation with the community and other learning institutions. An extensive list of references is provided. (GC)

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DEVELOPING EDUCATIONAL PROGRAMS FOR THE HIGH-RISK SECONDARY SCHOOL AND COLLEGE STUDENT

By
MARK E. BLUM
and
STEPHEN D. SPANGEHL

U.S. DEPARTMENT OF EDUCATION
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Developing Education Programs for the High-Risk Secondary School and College Student

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Preface

In this essay we will examine the "high-risk" student in contemporary education: the characteristics that make students "high-risk," the problems caused by the presence in educational institutions, and the various solutions to these problems that have been proposed and implemented on the secondary, junior, and collegiate levels. Although this problem has been examined many times by others, we feel that the present period —with its economic exigencies and its on-going reexamination of social values and the policies implementing them—calls for a comprehensive evaluation of what has been done to meet the "high-risk" problem, and for a consolidated model, combining the most effective elements of past programs, as a guide for future efforts. A useful model must, we believe, encompass all the dimensions of high-risk students' educational experiences, from formal classroom work to extracurricular and home life, treating all the problematic aspects of such students in a way that integrates their manifold activities, responsibilities, and interests while keeping the focus on what must be done to make them educated citizens. It is unfortunate that the large body of social scientific research suggests only piecemeal solutions to these educational problems, solutions that fail to take into account all parts of the student's life and environment and have, in spite of apparent short-term benefits, long-range and far-reaching detrimental effects. We believe that isolated *ad hoc* approaches that remove the high-risk student from the mainstream of education are artificial and ineffective solutions: we believe such students should be kept with their peers, sharing peer aspirations, responsibilities, opportunities, and values, as much as is possible. Even if economic pressures were not currently forcing a reduction in cost-effective "separatist" programs, the idea of keeping the student within the mainstream would be philosophically attractive in that it allows the educator to fashion comprehensive educational sequences based upon the psychological and sociological factors governing all students' behaviors in the educational system.

We have tried here to survey a large number of widely divergent programs, distelling for administrators, teachers, counselors, and all those engaged in the establishment of educational policy the practical and philosophical ingredients essential for a coherent response ton one of today's most pressing educational problems. Our recommendations synthesize elements of both actual and proposed programs, combining these elements into models that are educationally sound and financially feasible, and that can be implemented in institutions at many levels. We hope our colleagues will benefit from our work, and trust that they will improve upon it through their continuing efforts to help all students toward a successful and fulfilling education.

I. CHARACTERISTICS OF THE HIGH-RISK STUDENT

Administrators, teachers, counsellors, all those involved in setting educational policy and implementing it, cannot fail to recognize that there are very serious problems with many of today's students. Characterizing these problems and the students who give rise to them is, in itself, a complex and important task. Many different labels have been used to identify those who consume a disproportionate amount of the educational institution's time, attention, and resources: underprivileged, unprepared, problem, nontraditional, minority, and so on. Some of these terms are useful in that they help to focus upon a major characteristic shared by many of the students having and causing difficulties, but none completely captures the full scope of the problem; moreover, existing terms do not easily lead the educator to remedies. The label "high risk" may share some of these same difficulties, but it does improve upon the previous names in a significant way: The term "high risk" describes the individual student's attitudes and behavior in relation to the educational system by focusing on the probability of his or her academic success or failure, a sphere in which educators can have direct influence. Major sociological factors are contributory causes to these students' problems, and concern for these factors motivated labels such as "educationally disadvantaged" or "culturally disadvantaged." Social and economic pressures on groups of students, such as blacks or Hispanics, undoubtedly interfere with their ability to move towards self-actualization with the same ease as those who are free from these pressures. Moreover, the level of public support for educational opportunity can either lead to successful treatment for the individual student or frustrate any behavioral or psychological advances in the methods of treating the high-risk student by creating a social and economic climate unfavorable to their implementation. Ultimately, these non-educational factors may determine whether "high-risk" students succeed or fail in school, and whether they become productive members of the society. Educators must realize that their influence over societal change is indirect at best.

The educator is able, however, to influence individual students, and this realization makes the name "high risk" useful by focusing attention on the actions and thoughts of these students. It is a concept that leads to a more rigorous scientific analysis and treatment of problems, isolating, as it does, a single individual in a specific situation. Moreover, it is an egalitarian concept that has stimulated research showing that certain human characteristics that lead to failure in the educational system may exist in potential high achievers, members of the more affluent classes, and members of majority ethnic groups.

Past stress on socioeconomic causes has identified high-risk students chiefly in the lower strata of society and among ethnic minorities. This has been useful, but the newer approach allows insight into behavioral

and psychological variables, broadening the range of students who can be helped. The socioeconomic factors—used by most public funding agencies and by many researchers to identify high-risk students—are constants in the student's home environment, beyond the direct reach of the individual educator: parents' level of education, siblings' level of education, family structure, availability of reading material in the home, family income, and community environment (Kohen 1973). By contrast, the variable that current social science research sees as underlying high-risk behavior include:

- cognitive ability (Bachman, O'Malley, and Johnston 1978; Bowles and Gintis 1976; Beal & Noel 1980)
- task motivation (Walther 1976; Atkinson and Raynor 1978)
- cultural aspiration (Senett and Cobb 1972; Grasso and Sheat 1979)
- task performance (Blum and Spangehl 1976, 1981c; Shaughnessy 1977)
- locus of control and self-esteem (Coleman 1966; Conger, Dunteman, and Dunteman 1977)

By addressing these variables directly, educators may modify and augment many existing treatments to make them more effective. While these variables are familiar to most educators, many contemporary efforts to change high-risk behavior in secondary and postsecondary students are often counterproductive because a careful study of the curricular and institutional implications of programs has not been made with these specific influences in mind. Like the blind wise men in the proverbial story of the elephant, each researcher has studied his or her own favorite notion, but none has seen the whole of the beast.

Cognitive Ability Most educators see cognitive ability, as measured by intelligence and achievement tests, as the chief variable in student performance and persistkence within the educational system. Often, the socioeconomic status of students is coupled with their cognitive ability as the crucial amalgam of factors determining success or failure, but most researchers find cognitive ability the single element which makes a difference (Bachman, O'Malley, and Johnston 1978; Beal and Noel 1980; Bowles and Gintis 1976; Gottfredson 1980; Bailey and Collins 1977; Peng, Stafford, and Talbert 1977).

What is cognitive ability? Intelligence tests that determine this entity reflect three basic dimensions: the capacity to learn, the ability to think abstractly, and adaptability to new situations (Cattell 1971). It is the ability to think abstractly that is most often tested. The "primary abilities" of intelligence that are empirically based in most tests developed by researchers in this century are verbal ability, numerical ability, spatial ability, perceptual speed, speed of closure, inductive reasoning, deductive reasoning, rote memory (associative memory), mechanical knowledge and skill, word fluency, ideational fluency,

restructuring closure (flexibility of closure), flexibility vs. firmness (originality), general motor coordination (psychomotor coordination), manual dexterity, musical pitch and tonal sensitivity, and representational drawing skill (Cattell 1971).

Whereas intelligence testing and the curricula derived from its identified abilities are primarily oriented to "abstract thinking," contemporary educational thought has begun to expand into experiential indicators and treatments of cognitive ability. Problem solving and inquiry, which carry students through multiple environments and involve them in both psychological and behavioral dimensions of self, may be said to tap that element of intelligence referred by Cattell as "adaptability to new environments." Measures of human development that embrace the human in action promise a more thorough knowledge of cognitive ability than does research restricted to the narrow sphere of abstract skills of thought arrived at through pencil and paper testing. The work of educational psychologists, such as J. P. Guilford's (q.v. Brody & Brody 1976) identification of 120 discrete cognitive abilities, has given us a wealth of evaluative schemata and data to stimulate educational programs aimed at developing a range of human abilities beyond those of abstract thought. (See especially the collection of measures of maturation, and supporting literature, in Boyer, Simon, and Karafin 1973; although geared to early childhood, the views present outlines of development applicable to youth, adolescence, and maturity.)

The attention to a broader range of human ability is central to what is known as the competency-based movement in education. Its objective is to identify the competencies that are necessary to the pursuit of knowledge. Competency-based instruction has begun to transform the academic curriculum into a much richer array of explicitly identified cognitive abilities that make up the complex activities of academic inquiry (Woditsch 1977; Blum and Spangehl 1979; Oregon School Districts 1973). Evidence indicates that high-risk students perform better, achieve higher grades, and persist longer in school when they are exposed to competency-based, experiential modes of learning (Boylan 1977).

At the secondary level, concern for competence identification and testing suffers from too narrow an emphasis on traditional skills, such as reading, writing, and computation. Certainly, the "3 Rs" are central to human performance, but the restricting influence of the "back to basics" movement negates the promise that Guilford and others offer in their extension of the range of teachable human abilities. The National Assessment of Educational Progress tests of competency in writing, reading, and mathematics have been a great service to our society in that they have underlined the importance of literacy for all persons, and have reinforced public recognition of the importance of education as a national goal. Moreover, these tests have shown that blacks have increased their achievements in reading and mathematics in the past decade (National Center for Education Statistics 1980a), while white have shown

less improvement in these areas; thus, a national measure of student competence can provide evidence to counter ethnic stereotyping of academic ability and to stimulate greater efforts to support educational opportunity for minorities.

The national fervor of educational accountability has led to an increase in competency examinations for high school graduation. Sixteen states now either have or will start competency examinations for graduation (Education Commission of the States 1980). A canvass of the departments of education of these states shows that few have considered linking competency exams to a competency-oriented curriculum in the sciences or humanities. Rather, there is testing solely for reading, writing, and computation, usually at a lower level than required by materials used in postsecondary education. An examination of the four other vital psychological and behavioral variables in the education of the "high-risk" student—task motivation, cultural aspiration, task performance, and locus of control and self-esteem—makes apparent the short-term strengths and the long-term weaknesses of the popular attention given to a narrow range of "basic skills."

Educators must be careful that, in their eagerness to demonstrate a superficial "success," they do not rend the fabric of an education that cultivates students' socio-civic, intellectual, emotional, and artistic dimensions.

Task Motivation The student who has arrived at Piaget's stage of formal operations desires reasons for learning even cognitive abilities. One of the major behavioral and psychological variables distinguishing the successful student from the high-risk student, which can help the educator to plan and develop corrective interventions, is *task motivation* —and task motivation requires a coherent rationale as a stimulus.

There are a variety of reasons why typical high-risk students are not given sufficient grounds to motivate them for the various academic tasks in secondary or postsecondary curricula; they range from the commission of malicious stereotyping of the students, which destroys their ability to comprehend the rationale for certain tasks, to the omissions of educators who do not fathom the importance of placing an immediate task within the framework of its future and larger significance.

For the educator, the value of the concept of task motivation lies in its variegated implications in the areas of development, guidance, and community relations. Atkinson and Raynor (1978) point to the necessity of every task being recognized as a step that will lead to a preferred long-term goal. Persons engaged in such a task will have an "open, contingent" path before them; it is "open" in that new goals can emerge as they work on the task, for while the original long-term goal is realistically related to the task, there are enough intermediate steps between the goal and the present task to allow for exploration and for modification of destination. The path is "contingent" in that the immediate task is clearly related to the future goal; it makes sense and leads someone to do

this task. When a task given to someone is not clearly related to a future goal, it creates a path that is "closed and noncontingent" in that person's mind. Some tasks are "closed and noncontingent" not only psychologically but also objectively—many technical courses that train individuals for a specific type of machine or trade soon to become obsolete would fit such a description.

How does one open a contingent path to students so that every task is perceived as meaningful to their lives and fecund in that it enables them to see a variety of options leading from the present task to the future? Given the state-of-the-art in curriculum development, guidance practices, career and cooperative education, and community involvement in the learning process, there are several ways. The most fundamental intervention is in carefully linking the educational task to the actual state of the students' social and cultural experience, and their actual abilities. The students must first be made conscious of their abilities, interests, values, and points of view through reflective guidance, to help them develop an informed self-concept (Erikson 1968). Then the value of the academic endeavor must be made a part of their self-concept by indicating specifically how its processes immediately broaden the students and lead toward a future condition that will be more psychologically coherent and healthy (Grizzard 1981). Career education and guidance, when done well, can place students' immediate educational tasks within social and economic possibilities (Allen 1974). The advisor and counselor must work more closely with the academic instructor in making explicit the relationship between current study and future activity (Grizzard 1981; Highet 1950). Several models of career study linked to academic instruction will demonstrate how such an integration of perspectives can most effectively be accomplished. The best way to motivate students to accomplish difficult tasks is to supply them with accurate knowledge about themselves and what they will derive from their experiences. Attempts to increase task motivation by special programs that separate students from the mainstream, reinforcing failure by creating an artificial environment and watered-down learning, can only rob students of the opportunity to find a contingent path into the future (Dweck 1975; Tanner & Tanner 1980). Task motivation must not be induced by rewards extrinsic to the nature of the task. Unless students are helped to discover the intrinsic relation among their make-up, background, and the academic tasks before them, they will not benefit from the educational experience.

Cultural Aspiration The desire for educational attainment is a major dimension in contemporary cultural aspiration, and a factor that research has demonstrated to be critical in predicting actual educational attainment (Grasso and Shea 1979; Thornton 1976; Creech 1977; Kohen 1973). Cultural aspiration includes identification with one's culture and a desire to conserve or to improve it, and this identification and desire have an effect on both the value one places on educational achievement and

how far one wishes to advance in the educational system. For example, there is evidence that Hispanics place less importance on schooling in our culture than do whites (Brown, Rosen, Hill, and Olivas 1980). On the other hand, there is also evidence that blacks have increasingly put more value on educational attainment over the past decades (Grasso and Shea 1979; Creech 1977; National Center for Education Statistics 1980b). In the possible reasons for this difference between the cultural aspirations of these major American minorities lies the clue to the best educational policies for treating high-risk minority students, as well as the best course for enhancing achievement among white high-risk students.

The primary reasons for the differences in cultural aspiration among the black and Hispanic minorities, and perhaps a significant element affecting all high-risk students, may lie in the desegregation of schools in the past two decades. The thought, creativity, and humaneness engendered by a mix of differing cultures, seeking to work out social life mutually, learning together, has historically led to a flowering of culture and science where it has occurred: the assimilation of Eastern European Jews into high German culture in the 19th century, and the influence of the Greeks on Roman thought and civilization are still part of our Western heritage. W. J. Cash in *The Mind of the South* (1941) identifies a "northern" strength of mind which he sees as resulting from the greater integration of different ethnic people than in the American south, and while his analysis is admittedly nonscientific, it may help explain recent findings that blacks and whites achieve more when both groups learn together in situations where neither group is disproportionately represented (Crain and Mahard 1978).

For the Hispanic minorities, integration is retarded by the language problem; in the five states that have 75% of the Hispanic minorities (Florida, Texas, California, New York, and New Mexico), 40% to 60% of the students have limited English speaking skills, and only one-third to two-thirds of these students are being helped with bilingual programs (Brown, Rosen, Hill, and Olivas 1980). Moreover, 30% of all Hispanic students in the country are in schools that house more than 90% minority students; in the Northeast 50% of Hispanics are in such schools, and the ratio of Hispanics attending such schools is climbing in every other area of the country.

The increasing employment of blacks in responsible educational posts throughout our country undoubtedly adds to the value placed on education by blacks. With Hispanic minorities, however, where adult opinion is valued highly by youth (Brown, Rosen, Hill, and Olivas 1980), only 3% of the total number of adult employees in public elementary and secondary schools are Hispanic, and most of the positions they fill are nonprofessional. With a greater integration of adult Hispanics into the responsible educational positions, the very cohesive Hispanic community will probably place greater significance on education.

Educators have strengthened the role of education in the cultural

aspiration of minorities by the involvement of parents and community leaders in the schooling of their children (U.S. Office of Education 1973; Underwood 1980). Similarly, conscious efforts to include minority cultural concerns in the academic curriculum have insured that these populations will maintain a continuity with their own cultural roots (Abrahams and Troike 1972; Mann 1979).

The desire for achievement and leadership is another dimension of cultural aspiration. Such achievement and leadership, if practiced within the dominant culture, is usually rewarded by high socioeconomic status. There are definite paths leading toward higher achievement and leadership, paths that for the most part demand postsecondary education before or while one advances. The educational system plays a key role in preparing and steering students towards more or less opportune paths. There is evidence, for example, that students who take the vocational track in secondary schools have lower educational aspirations as well as lower actual postsecondary education or training than students in either the general or academic tracks (Grasso and Shea 1979; Creech 1977). Moreover, the jobs vocational students fill after high school, measured by income and status, are inferior to those attained by graduates of the general or academic tracks (Grasso and Shea 1978; Creech 1977). There are far-reaching implications in these facts for policies in educating high-risk students. If educational aspiration is, indeed, as significant in educational attainment as studies show, then the prevalent feeling among many educators that low-ability students should be provided with a vocational specialization to accommodate them to a more certain future must be seen as leading to the perpetuation of low-status, low-income futures. The tracking system legislates against low-ability students aspiring to excel in the dominant culture, tends to reinforce the distance between children of differing socioeconomic classes, and, in its daily example of sorting, provides a poor model of, and opportunity for, interdependent citizenship.

Task Performance Achievement and persistence in school, as in every aspect of daily life, require not only cognitive ability and motivation, but practice in performing the tasks. Practice in performance educates students in the conative dimension of life—the will, and the carrying out of coherent ideas with effective congruence between thoughts and acts.

The work high-risk students do lack logical development, thoroughness, and sufficient effort. They will attempt projects for which they are not prepared. They cannot identify the tasks needed to solve a problem. It is difficult for them to formulate a focused question that can be answered in a specified time. The activity of academic inquiry is foreign to them; they cannot define a problem; the notions of proof, evidence, or research methods appropriate to a problem are not part of their thought processess or modes of operating in the educational setting. They are not self-directed learners (Miles 1981; Shaughnessy 1977).

A major reason for the difficulties of many students in our educational system is the limitation of learning experiences to the memorization of materials, completion of exercises, or explication of materials—activities that place the individual in a merely responsive mode of intellective activity rather than in an initiatory, discovery, problem-solving, and constructive approach to learning that will include the emotional and conative, as well as the intellectual dimensions. Jerome Bruner recognizes the anthropological significance of this broader education when he stresses that intellectual skills should be learned first by their "embodiment" in action, in an exploratory situation which calls them forth (Bruner 1973). He also touches on the importance of having a *model* to help guide one in the phases and individual acts that make up inquiry, recognizing that one must be guided in action as well as speech in any cultural learning.

Most experiential education formats, at secondary and postsecondary levels, whether intern programs, other forms of cooperative education, or community involvement experiences, lack the modeling—Dewey's "dramatic rehearsal"—that prepares students for a self-directed, informed experience. Spending learning hours at a worksite is not usually the rich educational experience it is expected to be unless there is previous preparation (Smith and Theophano 1976). Students must be given a rehearsal in the types of activities they may engage in, and the skills that are involved; the employer or supervisor at the site must be schooled in how to help the students analyze their tasks, and how to evaluate their efforts.

Basing task performance on existing skills and interests of the student is essential, yet it is a consideration often neglected in secondary and postsecondary education (Bailey 1971; Tuckman, 1970; Erikson 1968; Tiedeman 1966). People have histories of experience and growth that must be respected. Education that is built upon a careful assessment of the people involved, and that has curricula capable of allowing them to harness their particular strengths and interests while assimilating objective cultural material, is possible using inquiry projects. There is a definite counseling role for the teacher in providing students with accurate information about themselves, their environment, and the nature of academic tasks, so that goal behavior by students can be realistic in its orientation towards themselves and their environment (U.S. Office of Education 1972, Bailey 1971; Tuckman 1970).

Locus of Control and Self-Esteem These two psychological variables have become central to educators in the past two decades as the effects of emotions and values on students' academic performance have been recognized. Coleman's analysis of the *Equality of Educational Opportunity Survey* points out students' sense of control over their own fate—their internal locus of control—as being a critical variable in achievement (Coleman 1966). In the major longitudinal study of the high school graduating class of 1972, this finding was reconfirmed (Peng,

Stafford, and Talbert 1977). Self-esteem—whether one feels that one is competent, worthwhile, and important to oneself and others—has been shown to be of less value in contributing to academic success (Bachman, O'Malley, and Johnston 1978); Gottfredson 1980; Peng, Stafford, and Talbert 1977).

Among low-ability blacks, there was a marked dissonance between locus-of-control and self-esteem scores, the former being low and the latter high. Low locus-of-control scores were explained as resulting from the ascription of failure by blacks to events beyond their control (Peng, Stafford, and Talbert 1977). High self-esteem scores have a more obvious source: since the advent of "black power" values—the search for an ethnic identity and the more active effort to end racial discrimination in all facets of culture—a pride has grown that is shared throughout the black community. The social-psychological research of Converse and Campbell (1968) indicates that when a community has high identification as a distinct group and a high cohesiveness among its members, the actions and values of its leaders will permeate the group. Yet, the frustration as black unemployment remains almost twice that of white unemployment, and the daily encounters in a culture that only grudgingly has opened itself to minorities, underscores a cultural pessimism about education making a difference for minorities (Jencks 1972), and legitimizes the attributional belief of many blacks that life is beyond their control. For educators, the presence of high self-esteem among high-risk minorities is to be cultivated, even though it is not prerequisite to academic achievement. Making the minority desire for equality and equity part of the curriculum will help the student identify with the school.

We must not lose sight, however, of the role of individual ability and effort in making a difference in one's own life, and consequently in the lives of those whom one affects. Individuals who have been given opportunities to exercise their abilities in such a manner tend to recognize that they can control their own fate to some degree. Internal locus of control is stronger among students who achieve academic success, and blacks of both high and lower ability with internal locus of control attend postsecondary schools in greater numbers than those who do not hold this belief in their own ability to make a difference. These individuals will be the future leaders in any community in which they participate. Internal locus of control may be furthered by exposing students to opportunities in which they can demonstrate to themselves that they can complete tasks, that these tasks are done well, and that the tasks have consequences that can affect others. Experiential education has the most promise in this regard. Cognitive skills must be present for the tasks to be undertaken, although many of the inquiry skills discussed earlier can be learned only in project-oriented education. Otto Rank, in discussing the primary path to mental health in the 20th century, states that one: "is helped not by more knowing but only by willing, not by knowledge of his

fate but by the living of his self-determination" (Rank 1956). Rank's stress on action that enables the person to experience his or her own sense of agency and potency suggest how important the daily tasks of education can be.

II. RESPONSIBILITY FOR THE HIGH-RISK STUDENT

The choice of the term "high risk" to describe problematic students carries implications for educational institutions too—in the way an institution views these students, in assessing an institution's responsibility for creating and reinforcing attitudes and behaviors detrimental to these students' success, and in the approaches adopted by a school to alleviate the problems caused by such students' presence. Educators can easily come to see minority or nontraditional students as an alien species, different in kind from the students for whom academic programs are normally designed. But the high-risk student must be viewed as the normal student is—as an individual, attempting to negotiate the educational system, yet hindered by quantitative rather than qualitative differences in certain important psychological and behavioral characteristics. These quantitative differences are neither unique nor immutable; everyone suffers from periods of low-esteem, for example, and motivation or performance in specific tasks is amenable to permanent change. Seeing the high-risk student in proper perspective clarifies the educator's responsibility: to take these transient characteristics into account when selecting or designing curricula for the high-risk student, and to structure the whole of the educational system so that it effects a permanent change in these negative characteristics. Risks are not certainties; they can be reduced.

Academic failure (and subsequent withdrawal or dismissal from the formal educational setting) is the most obvious of the dangers faced by the high-risk student. The societal consequences resulting from numerous failures of this sort, particularly when students fail to complete secondary school, are well known: adult unemployability, increased burdens on the welfare system, marital and parental problems (which, in turn, have effects on the subsequent generation), increases in criminal behavior, and so on. Inadequate education is certainly not the sole cause of these social and economic ills, but it is surely a very significant contributing factor. The fact that a disproportionate number of such failures occur among minorities and the impoverished adds even more troubling dimensions to this already critical problem. While, in earlier days, an education could be viewed as an advantage—being uneducated was normal—we have come to realize that the lack of an adequate education is a critical handicap in a complex technological society. In 1980, 71% of the nation's high school seniors expected to go on with their educations; in 1972, only 55% had similar expectations (National Center for Education Statistics 1980a). Clearly, postsecondary education has become the norm for our society, and the completion of high school an essential. For our

culture to continue functioning effectively, the high-risk student cannot be discounted and forgotten.

Although failure is overt, other risks are hidden, yet even more common. Many high-risk students manage to be graduated from high school or even to enroll in college, but carry with them substandard educations and destructive attitudes and values that have been fostered, in part, by the way in which schools have organized and carried out their programs. These students' inability to achieve their full educational potential results from the inefficiency of haphazardly planned curricula which neither clearly focus on nor measure increasing levels of skill and knowledge; moreover, as soon as such students are recognized as problems, they are shunted off into special treatments that in the long run create psychological and behavioral difficulties in the affected students and organizational disruption in the institution.

At the secondary level, problem students are placed in tracks according to their demonstrated achievements and the institution's estimates of their potential for future growth. At lower levels these tracks differ primarily in the level of competence demanded from the varying groups, but in high school the very subjects studied differ. College-bound students are exposed to the arts and sciences; they discuss ideas and rousing social issues and are trained to view the world from the objective perspectives offered by the sciences. By contrast, vocational students are given narrow, specialized training and are prematurely focused on the choice of a career. This leads, ultimately, to a sense of alienation on the part of those students placed in the lower track (and "lower" is consistently communicated by the organization of the school and the expressed values and attitudes of teachers and administrators), but it creates other, more profound problems for the society at large. Separatism makes each group unable to understand or empathize with the other. They hold separate goals, separate attitudes, separate values, and elements antithetical to a unified and democratic society.

From another viewpoint, however, special groupings become attractive: they seem to work. Particularly within small experimental groups for which special programs have been designed, high-risk students outperform others with similar profiles. The sometimes dramatic success of such efforts leads to their expansion or continuation, usually with substantially reduced effects on the students. In large part, the apparent success of such special treatments can be explained by the Hawthorne Effect (so-called because of its discovery during a study of management techniques at the Hawthorne, Illinois, Western Electric plant) which explains that increased efficiency occurs whenever people are made to feel that their efforts are being closely monitored, when they are participants in a "special" or "experimental" group (Landsberger 1968). Though the gains made by such participants are real and valuable, the means of achieving them depend upon the group members remaining conscious of the fact that they are experimental subjects; such consciousness is near

impossible to sustain or to institutionalize.

Separatist programs for high-risk students also foster a sense of cohesiveness within the group of problem students, increasing the disparity between the goals of this group and the mainstream student population. In itself, group cohesiveness is neither good nor bad; its benefits (or liabilities) depend entirely on the nature of the values, goals, and methods of the influence leaders in the group (Severin and Tankard 1979). Interestingly, there is evidence that individuals can achieve equally well in low-cohesive atmospheres, suggesting that perhaps low cohesion can be preferable as it legislates against the psychological dependence on group norms (Schachter et al. 1951; Landsberger 1968). High cohesiveness is desirable only when the beliefs of the group are ones that will be useful for the individual member.

Curricula and school organization can easily convince students of their own inadequacy, deepening their reliance on others for action and direction, and, even worse, robbing them of the opportunity to experience failure within the mainstream's tasks and challenges, and overcome these failures. Students who do not accommodate themselves to failure in the reality of their everyday operations, developing the necessary evaluation and augmentative abilities, will be unfit to meet the ordinary challenges of everyday life. The research concept applied to the effects of artificially supported "success" situations, protected from the ordinary environment, is *learned helplessness* (Dweck 1975).

The contemporary discussion of the "hidden curriculum" in schools, where students are taught in an indirect manner debilitating ethical, behavioral, and psychological norms (Fielding 1981; Gordon 1980, 1981; Ehman 1979; Yordi 1980, Apple 1979), should extend its critical focus to the nature of defining and treating "high-risk" students. The Alpha-Pluses and Epsilon-Minuses of *Brave New World* may be the consequence of this separation of the high-risk student from the mainstream. Since high-risk students already suffer from a low sense of their ability to mold their own lives, programs stigmatizing them as helpless in the face of educational challenges often serve to reduce their motivation to work hard, and provide them with a label to add to their self-concept; this may induce long-term effects cancelling out the apparent benefits for which the programs are created. For the student who perceives the school as hostile and autocratic, the result may be devastating: failure becomes a self-fulfilling prophecy.

The attitude of the institution on questions of access can also serve to create a climate unhealthy for the high-risk student. On the college level, many institutions are reluctant to allow students with a higher probability of failure the opportunity to attempt work it has judged difficult, unwilling to accept transfers from junior or community colleges, and scornful toward holders of high-school equivalency certificates (e.g. the G.E.D.) or diplomas granted for high-school curricula other than college preparatory programs. These attitudes create a climate in which it

becomes clear to high-risk students that the institution does not believe they possess the prerequisites for success, even if the institution is willing, for political or social reasons, to admit them. Similarly, institutional policies governing the scheduling of classes, the hours offices and libraries are open, and a host of other minor matters can make it indirectly obvious that the school is not seriously concerned with the problems common to high-risk students, many of whom have heavy family and economic burdens which make it necessary for them to be workers and students simultaneously. Though the word itself seems insubstantial, an institution's *image* is real: it is the result of policy decisions and organization, and it can be crucial in motivating students to succeed, or in making them expect failure.

Determining an institution's policy toward the high-risk student is difficult; fact, feeling, and belief must be combined. Just as high-risk students face dangers when they attempt to pursue their studies, the institution also opens itself to risks. Remediation may be more costly than the increases in tuition revenues generated by those high-risk students who manage to make the transition to regular college work. The presence of a large number of improperly prepared students may necessitate changes in introductory courses, or it may negatively affect the school's public reputation. In colleges with limited facilities, giving places in the admission queue to high-risk students may deny slots to students with a greater likelihood of ultimate graduation, and this, in turn, may reduce the pool of affluent graduates upon whom many private schools depend for gifts and endowments. If programs for high-risk students are implemented without careful study and foresight, tensions between differing racial, economic, and social groups may increase. Institutions must balance these risks against their desire for a heterogeneous student population, their philosophical belief in democratic ideals, and their obligation to correct the wrongs done by past prejudices. Government regulations and government funding for special programs add a layer of complexity to the dilemma; it is not surprising that many schools grasp at the simple extremes: a "sink or swim" policy of open admissions, or a return to an elitist imposition of selective requirements. Finding a rational, cost-effective, and philosophically satisfying way to serve high-risk students requires careful analysis of the dangers besetting them and the means by which they can be reduced or eliminated. American education has worked on the problem for over half a century, and only now are the signposts that may lead us to a solution beginning to appear clearly.

III. MAJOR ACADEMIC CURRICULAR ELEMENTS FOR THE HIGH-RISK STUDENT

The Range of Cognitive Skills to Be Treated The educator must keep in mind that high-risk students differ quantitatively in their skills

from the regular student, and that amounts of treatment in any one skill quality may vary, but not the demand for treating the same range of skills. These skill areas include all the basic mental operations identified as intelligence (Cattell 1971; Brody and Brody 1976); the "general intelligence" factor that problem-solving curricula may be said to initiate (Furth and Wachs 1974); the fundamental knowledge-acquisition skills of reading and mathematics, and communication skills of writing and speaking; and, the inquiry skills that enlist intellect, conation, and psycho-physical abilities.

The College Board, sponsor of the Scholastic Aptitude Test, has recently begun a 10-year program to improve high school students' preparedness for college study by concentrating on a more finely focused range of skills than the 3 Rs. The College Board has divided "academic competencies" into six areas: reading, writing, speaking and listening, mathematics, reasoning, and studying (Chronicle of Higher Education 1981). The array is well-founded on current research. What is missing, however, is attention to the inquiry skills that enable active research. A few of the competencies that would be pertinent to inquiry are included under studying, such as the "ability to set goals and priorities consistent with stated course objectives and one's own progress, to establish surroundings and habits conducive to learning independently or with others, and to follow a schedule that accounts for both short- and long-term projects" (Chronicle of Higher Education 1981). By setting these skills apart from an area labelled "research" or "inquiry," secondary and postsecondary education is further confirmed as a sedentary intellectual pursuit, found mainly within the classroom. One may learn such skills as a technique for studying the materials of others, but the fundamental skills that would enable a thorough search for and production of knowledge by the learner, or allow practice in its environmental utilization appear only piecemeal in the reasoning and studying areas. The decade, then, as far as the influence of the College Board reaches, will reinforce an omission of thoughtful improvement of the self-directedness of learners, or an intensification of experiential learning.

Nevertheless, the development of an array of skills in major competency areas as evidenced by the College Board is a step in the most effective direction. The discrimination of many discrete skills in such traditional areas as reading, mathematics, and writing has permitted an improved diagnosis of learning needs, and has helped researchers design curricula that allow accurate assessments of what is learned. Moreover, a subject area, such as reading or writing, that is developed according to carefully defined competencies allows disciplinary areas to identify what is expected in their domain in terms of these competencies. For example, in the study of history one might ask the student: "By forming generalizations about a given world crisis, demonstrate your ability to perceive and evaluate causes of international conflict" (Westinghouse Learning Corporation 1975). The teacher of history can direct the stu-

dent who has a problem with such a question to a learning laboratory to do exercises in the formation of generalizations, or in evaluating hypotheses according to specific criteria. Formerly, the sensitive history teacher could only indicate what might be the nature of the cause of the student's incompetence, and simply tell him or her to improve. The identification of discrete skills in human performance has opened the possibility of cooperative instruction between those who focus on skills and those who focus on knowledge. The Illinois state university system, at schools such as Sangamon State, is developing skills laboratories to complement upper division content courses with the provision of individualized training in reading, writing, reasoning and inquiry skills appropriate for the tasks in the discipline.

Reasoning Reasoning is perhaps the most critical dimension of academic work. Inquiry relies on it in all its active phases. Reading, writing, and computation rely on it when one must infer from evidence, judge by criteria, differentiate fact from opinion, or evaluate sources of evidence.

The primary abilities identified by Cattell and the cognitive abilities in Guilford's model benefit from an individualized, programmed curriculum of the type produced by commercial or federally supported learning laboratories, where educators can work full time, and may develop the learning units with the benefit of field-testing. Cognitive abilities of abstract thought can be improved, but much repetition is required; many items must be thought through for absorption of the principle and development of the capacity (Shaughnessy 1977). Individualized instruction that is programmed can enable learners to exercise reasoning abilities at their own pace, through exposure to units that are thorough and tested among diverse learners. Moreover, the programmed aspect of the instruction ensures careful sequential development of the ability in relation to supporting abilities. Learning Labs with programmed units available in the primary abilities of abstract thought are quite cost-effective; the instructional packages in primary abilities *never* lose their content-validity.

John W. Thomas has compiled in one brief monograph the most important contemporary taxonomies and models of the intellect that can guide educators in their own curricular development of reasoning competencies, or in their location of appropriate published programs. (He includes an extensive bibliography of available materials.) One of the most valuable features of the work is a comprehensive taxonomy of six complexes of reasoning that can be found from preschool through college, and a detailed breakdown of the skills of these complexes grade by grade. The complexes are (1) learning to learn, (2) communication, (3) classifying and comparing, (4) synthesizing and producing, (5) judging and evaluating, and (6) values clarification and decision making (Thomas 1972). Thomas has developed a programmed curriculum in *Making Judgments* for middle school (Thomas 1974).

Reasoning in disciplinary studies at the secondary and postsecondary levels can benefit from many excellent materials: the Westinghouse Learning Corporation's learning objectives for individualized instruction includes texts in language arts, social science, and science that blend reasoning competencies with appropriate content objectives (Westinghouse Learning Corporation 1975). The National Council of the Social Studies has had *Selected Items for the Testing of Study Skills and Critical Thinking* available for decades; it still is one of the best sources stimulating curriculum development as well as testing (Morse et al. 1971). A reasoning curriculum developed by Albert Upton and Richard Samson at Whittier College in the 1950s remains a paradigm for a sequenced development of analytic skills; it is in print as *Creative Analysis* (Upton et al. 1978). And, though it is like citing the dictionary, Benjamin Bloom's *Taxonomy of Educational Objectives: Cognitive and Affective Domains* (Bloom et al. 1956) is indispensable in constructing reasoning units independently or within the disciplines.

Problem-solving is integral to the more extensive research process in its focus on strategies for thinking through and attaining solutions to dilemmas (Chipman, Segal, Psotka, and Wu 1980). It may be taught as a supplement to and preparation for the conduct of inquiry. Arthur Whimbey has developed a problem-solving curriculum that could be implemented at the secondary or college levels (Whimbey 1980). Curtis Miles, Director of the Center for Reasoning Studies at Piedmont Technical College, Greenwood, South Carolina, has prepared an extensive bibliography on fundamental reasoning skills which highlights his own interest in problem-solving. His paper at the recent NIE/LRDC Conference on Thinking and Learning is a thoughtful review of reasoning research and curricula in postsecondary education (Miles 1980). Miles writes a column on reasoning curricula quarterly for the *Journal of Developmental and Remedial Education*, the major organ for reporting on the postsecondary education of high-risk students.

Learning-to-learn skills have increasingly become a focus for educators interested in reasoning (Chipman, Segal, Psotka, and Wu 1980; Thomas 1972). These are skills that enable learners to manage the learning process. From the sequence of activities in SQ3R (survey the text, question the material, read with an eye to answering the questions, recall the material with a closed text, review the text) to what is known as metacognition, where key questions are formulated that may aid one in self-control and self-monitoring, emphasis is on improving the economy and effectiveness of the learning process (Chipman, Segal, Psotka, and Wu 1980). It has been argued that programmed instruction with its coherent, attention-focusing materials, which lend to self-management, contributes to the ability to learn (Garner 1966; Briggs 1968; Russell 1974; Blum and Spangehl 1981a). The evaluation of reasoning abilities is somewhat limited if one looks for reliable and valid tests that have been developed over a wide population; as interest in reasoning grows, more

tests will emerge. *The Watson-Glaser Critical Thinking Appraisal* (Watson and Glaser 1980) is an excellent instrument for testing inference, recognition of assumptions, deduction, and interpreting for individuals from 10th grade level through graduate school. The Cornell Critical Thinking Test, Level X, is appropriate for secondary students; the Cornell test and many others that are applicable for a variety of reasoning competencies may be located in an extensive evaluation of tests of higher-order cognitive, affective, and interpersonal skills conducted by the Center for the Study of Evaluation at the University of California, Los Angeles, and by Research for Better Schools in Philadelphia (Hoepfner et al. 1972).

Communication Skills The area in which deficits in skill are most obvious among high-risk students is communication, broadly defined as the ability to receive or transmit verbal, written, or mathematical information. Scores on standardized tests of these abilities have been declining nationwide since 1963, although the decline may have now reached bottom. The reasons for this nation-wide drop in scores are complex: it is due, in large part, to the fact that a higher proportion of those taking the ACT and SAT tests is composed of students who have low skill levels and who, in earlier periods of our history, would not have considered going to college. However, the presence of these students' scores in the national averages does not entirely account for the decline; between one-fourth and one-third of the drop is due to actually declining skill levels among all students who complete high school (Carnegie Foundation 1977). Thus the problems caused by low levels in basic skills of communication, though most critical among high-risk students, are of wide concern.

For high-risk students, the inability to assimilate information easily gives rise to a host of secondary problems; students who have difficulty reading, who cannot interpret graphs or understand the significance of numerical data, and who cannot discern the difference between important and nonessential points in a lecture have little hope for success in introductory or advanced classes designed to transmit a body of information. Furthermore, weaknesses in the ability to express their ideas clearly in written or mathematical form make it impossible for them to demonstrate to teachers and testers the knowledge they have acquired. These skills are truly *basic* ones.

When these deficiencies occur at the secondary school level, the problem can be approached within traditional curricular norms, as the teaching of discrete basic skills has a developmental rationale, especially in the more complex reading skills such as interpretation, and in the higher level mathematical skills. Tracking lower ability students in order to insure that certain basics are acquired by those who need them is the most obvious approach, yet it has proven the worst one because of the negative effects, discussed earlier, on task motivation, cultural aspiration, and locus of control and self-esteem. The alternative is to be found

within a comprehensive curriculum that involves all students in more challenging, interesting learning, with special learning laboratories. The time spent in these laboratories can become part of a high-risk student's day, just as the better student can use the same learning laboratory to practice high level reasoning, reading, and mathematics skills side-by-side with the high-risk student who works on lower levels in the same skill areas.

The freshman college curriculum is usually based on the assumption that all students have already acquired these basic skills. This assumption is probably unwarranted when dealing with the majority of students, and clearly false for high-risk students. Nevertheless, it is held fervently, and the result is a violent debate among college faculty over whether colleges should provide students with remedial instruction. In truth, as the Carnegie study on the *Missions of the College Curriculum* (1977) points out, the line between college-level work and remedial work has always been unclear: first-year language courses receive regular college credit in spite of their availability in high schools, as do courses in higher mathematics and the sciences. Yet, although there are no clearly defined levels of competence required for college entry in a wide number of subject areas, tradition seems to insist that postsecondary institutions continue to expect students to acquire skills in reading, writing, and speaking their native language before they enter. (This is true only when the native language is English; at almost all institutions, a much lower degree of competence is required of foreign students.)

There are three ways for colleges to deal with the problem. First, they may set standards for admission in such a way as to exclude all students with communication problems. Second, they may allow all free access, but embody high expectations in their freshman curricula, thereby "weeding out" students who do not already possess high skill levels. Third, they may allow all students entry and provide help for students who do not have the requisite skills. The first approach is still common, particularly among private institutions; public colleges (and many private ones) want and need high enrollment figures, and are loath to turn anyone away. Thus, the real choice for most schools is between the second and third alternatives.

A typical response seems to include elements of both the second and third alternatives: unselective admissions (or token requirements which even unprepared students can satisfy), a number of difficult, required freshmen courses (although less difficult than they were in the past, at times), and remedial courses or tutorial services for students with deficits. Programs making use of remedial courses must make additional decisions: whether unprepared students should be compelled to undertake the remedial work, whether such courses should be given for credit, and whether students taking them should be allowed to pursue "traditional" college work concurrently. Among existing programs, there is little consensus on these questions. Two-year community colleges came

to serious grips with the problem before four-year colleges did; in an unpublished survey done in 1970, Patricia Cross found that 80% of these programs involved remedial (usually called developmental) courses. Of these colleges, a third counted the courses as regular work and awarded degree credits for it, while one fourth counted the work as "institutional credit" (creditable toward full-time enrollment status, but not toward a degree) (Medsker & Tillery 1971). The remedial curriculum itself usually focuses on reading, mathematics, writing, and study skills; occasionally speaking and listening are also included.

Of these areas, mathematics is perhaps the one with the most sensible developmental curriculum, although it is beset with other problems. In mathematics, there exists a widely-agreed upon order in which specific skills must be taught, an order that follows from the logic of the subject itself. Students must learn to add before they can multiply, to solve linear equations before they turn to quadratic equations, to study geometry before trigonometry. Thus the pedagogical questions in mathematics turn primarily on *how* each skill should be acquired rather than *when*, and what level of competence should be achieved at each stage of schooling. There is, for example, wide disagreement among college faculty on what entering and exiting mathematical skill levels are desirable for students not majoring in the sciences. Consequently, although many of the remedial mathematics courses offered are very effective, making use of programmed and individualized materials to build student skills, the lack of consensus concerning minimum computational skills has negative effects on the willingness of students to make use of these courses.

The situation for verbal communications skills is quite different. Since the ingestion of the written word is still the primary means of gathering information in schools, there is little dispute about the importance of reading. Instead, the problem is that there is no clear consensus about the specific skills necessary for competence in reading, nor is it clear that these skills must be acquired in any specific order. Most research on reading instruction has focused on the primary level, and remedial efforts have been analyzed in depth only at the secondary level (Guthrie, Seifert, and Kline 1978). Some discrete skills have been identified (phonics, word recognition), but these are primarily at the beginning level; the complex abilities that enter into interpretation and critical analysis of written ideas have not been fully explored. Thus, the needs of many senior high school and college students, those who already possess the ability to decode sounds, are being met in haphazard fashion at best. Most college remedial reading programs are copies of secondary and high school programs, with few (if any) changes allowing for the major psychological differences between, say, 10- and 18-year-olds. Even so, some conclusions can be drawn: that long-term gains in reading ability cannot be acquired quickly, that the rate of remediation does not change with age (which is to say that an increase of one grade level in reading ability takes as long for an 8-year-old as an 18-year-old) (Guthrie,

Seifert, and Kline 1978). Many investigators (e.g. Chomsky 1978) stress the need for those deficient in reading to practice with large amounts of material; low reading achievement scores usually indicate that the student has done little reading, and this consequently leads to a general deficit in the "background knowledge" essential for successful college work in a wide variety of disciplines. Many remedial programs provide specialized work in increasing reading speed or in vocabulary building (Medsker & Tillery 1971), but there still exists much resistance to viewing reading as a complex of separable abilities, sometimes referred to depreciatingly as "splinter skills" (Chall 1978). Substantial research needs to be done, particularly on how most effectively to improve the analytic reading ability of postadolescent students; one hopeful sign is the recent separation of "learning to read" skills from "gathering information from text" skills (Singer 1978). Writing is another area where wide superficial agreement exists. That students should learn to communicate effectively in standard English is broadly accepted, and positions such as that of the National Council of Teachers of English in their policy statement on "The Student's Right to his own Language" (which advocated the acceptance of all dialects of English for written work) attract few supporters today. Freshman English is still required at virtually all community and four-year colleges, and most offer some form of remedial work for those unready to pass the required course: writing laboratories, workshops, and so on. The problems in remedial writing instruction stem from three areas of disagreement: (1) there is a great variation of standards for acceptable written work in courses other than English, a variation that causes many students to question the necessity for acquiring fluency in writing or for maintaining fluency after they satisfy the freshman English requirements; (2) there is wide disagreement on the most effective methods of improving writing skills; and (3) there has been little effort devoted to identifying and ordering the subskills that lead to writing fluency. The first problem has been attacked in some colleges by developing and articulating institutional standards in order to make all faculty see themselves as part of the effort to teach writing. The second problem persists, however; although a multiplicity of instructional methods and materials are available, there is little empirical evidence concerning their relative effectiveness. This is, in part, the result of a widespread anti-quantitative bias among those who teach in English departments, where subjectively-judged writing samples are still preferred over standardized objective tests. This unwillingness to quantify writing ability has consequently led to a reluctance to tackle the third problem, although it seems intuitively obvious that a hierarchy of skills exists in writing as much as in mathematics: vocabulary building is a prerequisite for effective word choice; students' must acquire the ability to recognize a mechanical error (i.e. to proofread) before they can be expected to avoid such mistakes in their own compositions, and so on. The best course for the future seems to lie in careful objective measurement

of the benefits of the many different methods now available, and a greater effort to isolate specific concomitant skills and develop curricula that exercise them. Within individual institutions specific competencies, behaviorally specified (e.g. students must be able to distinguish fragments from complete sentences by the time they have acquired credit hours), would help in making effective writing a common concern and objective.

The other verbal communication skills, speaking and listening, are largely ignored in the curricula of many schools, although students are invariably judged on their speaking ability (by, for example, computing grades based partially on "participation") and expected to acquire information presented in oral form. Speech courses are more common than courses to enhance listening ability (Medsker & Tillery 1971), but there are few attempts to integrate instruction in speaking with instruction in writing—in spite of the obvious fact that problems in both areas spring from common sources. A good model for these areas is the innovative work done in foreign language instruction, where speaking, writing, and listening are all dealt with together, often using audiovisual aids in individualized settings. Many effective materials exist for curricula in listening: *The Relevance of Listening* (Sartain 1975) workbook and tape series, for example, develops this skill to a level beyond that possessed by many college graduates.

In sum, there is a surfeit of materials that can be used to teach basic communication skills, but they are most effective when used in a carefully planned and integrated program. Lastly (but perhaps most important), remedial instructional programs in these skills must be rigorously evaluated in terms of objectively measured increases in skill, and the least effective materials and methods must be discarded (Beal and Noel 1980; Roueche 1976; Sheffield and Meskill 1974; Michlein 1976; Vest and Spino 1975). Research on remedial instruction and evaluation of remedial programs cannot be left solely to those who run such programs—and who often have a vested interest in their continuation as presently structured—but must become a concern of all those who are part of the institution.

Instructional Methods The experience of many educators (e.g. Beal and Noel 1980; Sheffield and Meskill 1974) indicates that traditional lecture and discussion class formats are less effective with high-risk than with traditional students. This is only to be expected, given the deficits in listening and speaking skills characteristic of many of these students. In addition, the traditional lecture-discussion organization places a great burden on students to keep up with assignments without supervision; often the only monitoring done by the instructor is in the form of a final examination or term paper. Highly motivated individuals may be able to maintain a constant level of effort with such deferred goals, but high-risk students, characteristically weak in both task and goal motivation, are less likely to do so. Similarly, their low sense of self-esteem prevents

high-risk students from signaling the instructor that they do not fully comprehend the material or that they need clarification, while students with stronger confidence in their own worth feel less threatened by a public display of their ignorance. Thus, the instructional methods most successful with high-risk students are those that allow them (and their instructors) to monitor progress constantly, provide frequent reinforcement for work done properly, and allow students to ask for help without humiliating themselves.

Individualized instruction meets all these criteria, and lends itself well to any subject matter composed of skill exercises or the acquisition of a body of factual knowledge. The salient characteristics of all individualized programs are: (1) course activities broken into short segments through which learners can proceed at their own pace, (2) achievement of learners monitored after completion of each segment, and (3) each segment revised (or repeated) until the desired level of competence is achieved. There is a wealth of material on the design of individualized courses or units within courses; the International Congress for Individualized Instruction publishes or reviews these in its excellent journal, *One to One*. One difficulty is that individualized units take far more time to prepare than traditional classes: objectives must be thought through and articulated; optimal strategies that enable the student to reach these objectives must be found; and tests must be devised for each step in the learning process. This heavy investment in faculty time and effort is balanced, however, by the fact that such materials can, once they have been perfected, serve an endless number of students with minimal supervision, and this supervision need not be provided by faculty. Furthermore, individualized lessons can provide repetition and drill, which many instructors find intolerable, even when they recognize students' needs for such repetition; with language communication skills in particular, such drills can be highly effective, since language patterns are habits, and students must learn new habits to substitute for the undesirable ones. Consequently, individualized instruction is both cost-effective with recurrent problems, and well suited to the psychological profile of the high-risk student.

Tutorials are a widely used means of providing for the needs of high-risk students. They are attractive in that students are permitted to take classes with traditional students, thus remaining part of the mainstream currents of the institution; the tutorial session is used to explain and drill the student in the knowledge and skills necessary to pass a traditional course. The benefits, obviously, are that the students' work is regularly monitored by the tutor and that the students' low self-concept, which interferes with their requesting help and clarification in the traditional classroom, may not be a handicap in the tutorial setting. Much, of course, depends on the tutor and the relationship he or she develops with the students; the tutor may easily work against the students' ultimate success by fostering in them a sense of dependency and learned helplessness.

Unfortunately, not all tutoring programs place high value on the need to train and regularly evaluate tutors. Then too, tutoring is expensive, particularly when organized on a one-to-one basis. It would appear that small group tutorials are more cost-effective and less likely to reinforce long-term negative characteristics (such as a sense of dependency), but successful programs have been reported in both one-to-one and small group formats (Carman, 1975; Vest and Spino 1975). There is some evidence to indicate that individualized instruction is best for acquiring basic level skills, and that small-group tutorials are most effective for practicing already acquired skills (Zajonc 1965).

Continuous progress instruction is the label applied to a variety of programs similar to individualized instruction in their insistence on the need for learners to be made constantly aware of their mastery (or lack of mastery) of the materials. This method seems applicable to courses focusing on a body of knowledge (Moore, Gagne, and Hauck 1975) and to courses developing skills through long-term projects (Blum and Spangehl 1981b). As with individualized instruction, continuous progress instruction requires the teacher to think out and articulate objectives, and to devise means of testing student growth in meeting each objective at regular points within the course. However, since continuous progress units are supervised by the teacher, they do not require the same degree of intensive planning as those in the individualized format; as a result, they can be viewed as an earlier stage in the development of individualized materials. There are objections to the amount of paperwork required in constantly monitoring student progress, but such monitoring is essential in any treatment that is to be successful with high-risk students.

Programmed instruction is a particular form of individualized instruction, one often opposed because of its slow pace, minute incremental steps, and repetition. These characteristics seem to disturb teachers more than students, however, and the constant positive reinforcement of programmed texts appears to work well with both high-risk and traditional students (Skinner 1968). The preparation of programmed materials is both expensive and time-consuming, but many good texts covering a wide variety of both skill and content areas are already available. As with all individualized modes, these require a minimum of supervision, and are highly-cost-effective if the expense of preparing the materials is discounted. High-risk students are particularly pleased by the fact that programmed materials allow them to make mistakes in private, eliminating the need for public displays of ignorance. Both task motivation and self-esteem benefit from the use of such materials.

Computer-assisted instruction (CAI) and computer-managed instruction (CMI) require costly investments in equipment and programming, but are highly effective, particularly if larger groups of students are served. CAI shares all the characteristics of programmed instruction, but improves upon it in significant ways: students cannot misuse the com-

puter program as they can the printed one, and using a computer itself appeals to many students. CMI programs are easier to prepare than those for CAI, and help to guide students from one activity to the next in the acquisition of skills and knowledge while monitoring their progress. An exemplary CMI installation, R.S.V.P., is in operation at Miami-Dade Community College; it allows the instructor, in a highly efficient way, to monitor the progress of students, and to tailor assignments to their achieved competence and needs. The principles involved can be employed on smaller scales without a computer, although the machine is a necessity if many students are to be tracked through highly individualized courses of study. For large groups of students with similar needs, CMI systems can be highly cost-efficient; they tend, however, to strike uninitiated faculty as somewhat oppressive.

In summary, there are a number of alternatives to the lecture-discussion format that have proven effective with high-risk students, and that deserve wider use (McKeachie 1978). Of these methods, the most promising are individualized instruction (in whatever format it can be afforded), group tutorials, and continuous progress instruction. These should not displace the more traditional methods entirely, but should complement them. Those methods are best that recognize and take into account the particular psychological and behavior characteristics of high-risk students, and that move the students toward the goal of all education: the production of highly skilled, knowledgeable *independent* thinkers and doers.

Competency-Oriented Disciplinary and Interdisciplinary Studies

The subjects studied in secondary and postsecondary education usually have a long history in Western and other world cultures. Gradually, three major domains of knowledge have emerged in civilization: the humanities, the social sciences, and the biological and physical sciences. Each domain examines differing aspects of existence, yet often with similar methods of inquiry and overlapping areas of interest. Given the interdependence of the major divisions of knowledge, Tanner and Tanner have pointed out the importance of providing an interdisciplinary focus for youth from the time they begin the formal operations of reasoning (1980). Students do not begin to specialize in depth until the latter years of college. Until then at least, educational policy for the regular student *and* the high-risk student should stress a balanced education of knowledge, skills, and values. Each grade adds to the knowledge, and the high school need not produce young physicists or historians: the high school can rely on postsecondary education for an intensification of knowledge so that scholars can choose a field in graduate school, and budding business people can learn the dimensions of a particular business beyond their education in college economics, accounting, and English composition. Secondary education should enable the individual to respect the broad meanings and values of the three divisions of knowledge, but emphasize primarily how to reason and inquire into the

issues of the world and daily life with the tools from these domains.

An interdisciplinary education from middle school through secondary school is based upon a thorough taxonomy of research processes and reasoning operations that are inherent to the social sciences, humanities, and natural sciences, and that are taught in a spiraling curriculum over the years so that the competencies of inquiry become second nature to students (Bruner 1968; Tanner and Tanner 1980; Gagne 1974).

The comprehensive curriculum guides of the Oregon School Districts Course Goal Project (1973) offer the taxonomies of skill, value, and knowledge in secondary fields from art through science that can serve the construction of a spiraling secondary curriculum. The Westinghouse Learning Corporation produced a set of learning objectives to guide student research in courses in the social sciences, natural sciences, and humanities (1975). Work at the postsecondary level in competency-oriented interdisciplinary education can also be used by secondary schools with some modification. Alverno College in Milwaukee has developed a four-year Liberal Arts degree in which student growth in the abilities of inquiry, communications, social interaction, and aesthetic responses are guided in each major division of knowledge (Alverno College Faculty 1979). At the University of Louisville, the open admissions unit has concerned itself with reconstructing general education in the major divisions of knowledge so that high-risk students can more readily relate to the ideas and practices of inquiry; they have produced a plan for competency-oriented, interdisciplinary education that may guide a four-year higher education, but that can be adapted at lower levels (Blum and Spangehl 1976, 1979). Their Developmental Education Center has texts available in the social sciences (Blum and Spangehl 1981b), as well as in academic library research and critical thinking. Recent pedagogical advances in learning the conduct of inquiry have made a discovery, experiential-learning approach more possible and effective. Charles Wales, who teaches freshmen engineering at West Virginia University, has led a group of scholars from the humanities, social sciences, and biological and physical sciences in the construction of an interdisciplinary sequence of introductory courses that guides students in learning how to be inquirers (Wales and Stager 1978). What is unique about his effort and its contribution to the education of the high-risk student is the carefully constructed model situations, which take the student step-by-step through the formulation of researchable questions, the search for appropriate evidence, and other stages of the research process. Freshmen who take these courses average one grade higher in their later academic work than those who take the lecture-discussion introductions to subject areas. Hunter Boylan, who implemented a similar approach at Bowling Green State University had equally significant results (Boylan 1977).

Evaluation of interdisciplinary learning offers the educator an opportunity to address the longitudinal growth of the student, which tradi-

tional evaluation within subject disciplines obscures. Interdisciplinary learning is based on active inquiry as well as knowledge of content; the inquiry processes are the same year after year in each major division of knowledge, with only small differences in actual procedures; an evaluative system such as that used at Alverno College can be designed to indicate growth in the dimensions of reasoning and research, as well as in the central ideas of science, humanities, and the natural sciences. The Developmental Education Center at the University of Louisville has developed a system of evaluation that focuses upon the empirical procedures used in inquiry, and that is designed to follow student growth in the essential skills of research semester to semester (Blum and Spangehl 1979). The system is guided by the theoretical principles suggested by David Winter in "Defining and Measuring the Competencies of a Liberal Arts Education" (1979). A student's performance is measured first according to the empirical performances of specific procedures of inquiry. Then, the performance is coded according to the purposiveness (clarity, coherence) given the goals of the student, the performance (adequacy, accuracy), and the degree of self-directedness (economy, originality, suitability).

Some degree of teacher reeducation is needed to move toward interdisciplinary and inquiry-oriented elementary and secondary education. Most colleges do not stress active inquiry in a major until the last few courses; explicit skills of inquiry or interdisciplinary orientation are rarely found within a disciplinary major. There are training materials that are designed with a competency-oriented approach to inquiry; many of these training programs are educational products of research and development centers funded by the National Institute of Education (N.I.E. 1976). The nationally funded network of research and development centers have produced teacher training programs for over a decade, and should be consulted when planning competency-oriented curricular programs.

Traditional "General Education" for the High-Risk Student In the past twenty years educators have questioned the value of traditional "breadth" requirements in high-risk students' courses of study, and many institutions have reduced or eliminated required courses in the humanities, arts, social and natural sciences, and foreign languages. This movement has been the result of several assumptions of dubious validity: that these subject areas are too difficult for students who have not yet mastered basic skills; that the courses are perceived as irrelevant to the backgrounds and goals of high-risk students; that career-oriented specialization will benefit students from lower socioeconomic strata most; and that distributional courses designed to culturally enrich such students interfere with such specialization and serve to weaken students' motivation to persevere in their studies. The need for all students to assimilate the thoughts and values of a common Western cultural tradition, once accepted as axiomatic by almost all educators, has also been

disrupted by a newer insistence on ethnic pride and identity among minorities, an insistence which has sometimes taken the extreme form of total rejection of the common heritage of the majority culture.

The educator's task is to find the means by which this body of skill and knowledge can be acquired by high-risk students. This is made even more difficult by the lack of agreement as to what ought to constitute the "general education" of the traditional low-risk student. As the Carnegie Foundation notes, "The erosion of general education on America's college campuses is even more severe than its share of curricula might indicate, for in many cases it is poorly defined and is so diluted with options that it has no recognizable substance of its own" (Carnegie Foundation 1977). Rethinking the role and structure of general education curricula will benefit all students, not just high-risk students.

One of the major values of a general education curriculum (at both secondary and postsecondary levels) is that it can introduce the student to a variety of ways of approaching phenomena and problems: the analytic (mathematics, syntax, logic), the empirical (social and natural sciences), the moral (religious studies, philosophy), and the aesthetic (literature, the arts) (Carnegie Foundation 1977). Too many of the beginning distributional courses offered today serve in reality more as first steps toward specialization in a discipline than as surveys of a field's methods, assumptions, goals, and habits of mind; this emphasis is a natural outgrowth of the interests of the instructor (usually a specialist in the discipline) or, on the college level, of the needs of the department, which wants to attract majors and begin their specialized training as early as possible. One corrective measure, which works well with both high-risk and more traditional students, is to focus general education courses on the broader areas encompassing several disciplines that use common approaches: a course in the approach of the social sciences, for example, is more likely to be effective than specific courses in psychology, economics, or sociology. Such *generic* courses provide high-risk students with the basis for an informed choice of a major, give them a common ground for intellectual interaction with other students (thereby promoting cohesiveness among the entire student population of an institution rather than within small subsets of that population), and give them the tools for understanding and affecting a complex world in which decisions are made, more and more, by narrow specialists.

The courses constituting the general education program can be taught in a variety of ways; textbook reading assignments coupled with lectures and discussions often fail to involve the high-risk student in general education courses. Newer directions in curricular construction—competency-oriented courses, experiential and problem-solving foci—are more likely to enable students to be carried along by the inherent interest of these fields. A humanities course examining the way in which current social trends are embodied in a variety of the arts can draw upon the students' own experiences, and can pose specific questions or require

decisions that help to motivate the students' own desire to become more familiar with the subject. A social science survey allowing students to conduct real research by applying the methods of behavioral scientists—doing surveys, conducting controlled observations, tabulating data—is more likely to capture their interest than an abstract lecture on or discussion of these methods. The traditional arts and sciences can be taught effectively in nontraditional ways, which complement the psychological needs of the high-risk student.

Similarly, the specific materials used in general education courses can be modified to increase the motivation of high-risk students; this requires not merely that teachers pander to the immediate interests and experiences of their high-risk students, but that they consciously try to *relate* the subject and the materials used to present it to the lives, values, goals, and fears of their students. Medieval/European history can become *relevant* to inner-city black adolescents when they see that serfdom was a form of slavery or that discriminatory practices of modern unions are the result of the same forces that created the abuses of the medieval craft-guilds. Indeed, it is unlikely that anyone would want to teach a subject that had no relation to the concerns of people today; the teacher's responsibility is to make students see that all subjects studied are relevant. It is also important in selecting course materials and themes to insure that high-risk students, who have often had little experience with cultures other than their own, are exposed to other times, places, values, and ideas. If education is "broadening" for all students, it should be particularly so for high-risk students.

Self-Actualization and the Academic Experience All individuals, especially high-risk students, need guidance that will encourage and inform their academic and personal growth. From their earliest years until the final growth years of adolescence, students spend a large portion of the day in an academic environment. The academic experience must then consider what are the best settings and best learning experiences for healthy growth that maximizes students' self-actualization in areas of intellect, emotion, will, and values. It is in the school more than anywhere else that students are expected to perform as autonomous citizens who must stand or fall in their work, cooperation, and ethics. While they develop the students are protected by school, family and community, but their arena of self-revelation and actualization is mainly in the learning community.

Sherwood L. Washburn points out that what is characteristic about us as evolving creatures is that we strive; that we are full of rage, dominance and the will to live; that we are intelligent, exploratory, playful, vigorous primates; and that we evolved according to a reality founded in "a succession of social systems based upon the motor abilities, emotions, and intelligence of (our) members" (Washburn 1975). Schooling should offer no fewer dimensions of being human than the anthropologists say we possess, and schooling must provide for a reflective discussion of each

activity, and an opportunity for self-government. It is in this spirit that Norman A. Sprinthall speaks of the role of the school counselor. The counselor must help students grow in every human dimension, must help students find the intrinsic meaning in each type of activity in which they engage. Referring to anthropological literature, Sprinthall points out that humans possess an intrinsic capacity to learn, to explore, and to strive for self-mastery and self-direction, and that given these unfolding urges, the counselor must work closely with the teacher, and in the academic experience itself to insure it leads to self-actualization (Sprinthall 1971). Counselors are professionally schooled in matters of human psychological and behavioral development; it is perfectly sound advice to give them a major role in the academic setting. They can review the instructional techniques, learning settings, and subject content from the perspective of an authority in human growth. Issues of locus of control, self-esteem, values, and citizenship benefit from counselors' experience, and they can educate teachers and students in these issues while participating in academic settings. Sprinthall recommends that school counselors must augment their role. They must maintain the traditional linkage to parents, community contacts, and other peers of the student, exercising guidance and therapy, but they must begin to move into the realm of human competence. It is in the support of developing human competence that Sprinthall feels the most can be done for the individual. This competence is cognitive, but emotional too; it is skill-based, yet it is guided by the values, attitudes, and goals of the individual.

The conception of self-actualization that centers it within the exercise of competency introduces psychological and behavioral variables as the cornerstone of the academic experience. Now one must also think about the process of learning as well as the result.

Small group discussions, individual presentations, cooperative projects, in-class writing intervals followed by discussion, large group enterprises, research drills for learning certain kinds of problems and vocabulary, debates—all these forms of human thought and action include slightly differing values and skills, and their mix offers an amalgam of necessary human experiences. The individual project allows the creation of goals based upon recognized interests and values vital to oneself, and the self-monitoring of a search or constructive activity which one has personally designed, and enforces the meaning and practice of evaluation and modification of effort. The cooperative project helps students learn to listen, to empathize, to develop the ability to compromise in their decisions, and to coordinate their work. The group project involves the clear recognition of one's limits and necessary interdependence. High-risk students, who are in the company of their mainstream peers, and are involved in an academic curriculum that has these varied dimensions of human activity will become responsible and self-directed, responsive to others, and interested in education more readily than will high-risk students who are restricted to narrow remedial activities and grouped

with other "losers" (Hawkins and Wall 1980; Arnove and Strout 1978).

An increasing emphasis on evaluation may act to eliminate high-risk behaviors and attitudes. Learning the language and strategies of self-evaluation can begin in the elementary school and can increase in its language complexity and applications through postsecondary education. Learning to use and to respect evaluative language prepares one for overcoming inadequate performance because one has himself or herself recognized facets that need correction; the evaluation of work can then become a dialogue between the teacher and the student. Increasingly in the past decade educational researchers have explored the logic and methods of question-asking supporting self-evaluation. (Smith and Meux et al. 1970; Meichenbaum and Goodman 1969; Markman 1979).

Evaluation can enhance the sense of internal control and raise self-esteem if it is placed in the hands of students in a clear and manageable manner. Programmed skill exercises, which range from simple tasks to complex problem-solving operations and which include methods of self-evaluation, can increase a student's sense of self-management and effectiveness, even in the face of frequent errors (Garner 1966; Russell 1974; Thomas 1973).

Evaluation is best, however, when it becomes a natural function in human operation. Norman Sprinthall and Lois Erickson have introduced what they call "deliberate psychological education" to the social studies departments in the St. Paul, Minnesota, secondary schools. Their several courses seek to educate students in psychological skills that will help them evaluate themselves and understand others; the curriculum ranges from purely psychological skill instruction, using an ad hoc discussion of the personal issues and interests of the students, to issue-oriented units, such as one on women in society (Sprinthall 1976; Erickson 1976). Among the psychological skills of self-evaluation taught were acquiring a language for identifying and expressing feelings; examining personal goals, values, aspirations, and self-attitudes; and evaluating the morality of decisions. These courses proved to be a wholly new experience for those involved, and gave them a workable language for self-description, the interpretation of events, and the recognition of rules in situations that surround them.

A concern for self-evaluation is found also in the values education movement, which encourages students to become aware of, plan for, and act upon personally significant values within and beyond educational situations (Raths, Harmin, and Simon 1966), and in the work of the moral education movement, which seeks to raise the cognitive complexity of the students' intellects to the level of autonomous judgment by universal values (Kohlberg 1975; Rest 1974a, 1974b). Moral educators such as Lawrence Kohlberg and James Rest are developmental in their approach, recognizing that a middle-school-age child, for instance, is capable of only certain recognitions; however, Kohlberg and Rest seek changes in level for every age group they work with. Values education

and moral education can be very effective when embedded in the social sciences, the study of literature, or the activity of natural scientists. A curriculum with a values or moral judgment orientation provides students with a clearer view of humans acting in history, thus making possible their use as good or poor models for personal decision making Harmin, Kirschenbaum, and Simon 1973; Oliver and Bane 1971).

Although in our stress on personal evaluation and competence we have touched on the central issue of helping high-risk and regular students actualize their potential in the academic situation, some tangential methods for enhancing the motivation and the actual learning of high-risk students must be added. Finding models in one's peers or community can help an individual identify positive behaviors and worthwhile future goals. The use of high-risk junior high and high school students to tutor elementary students, or the use of high-risk college students to tutor high school students has proven somewhat effective for instilling the goal of a future in education at a higher level for both the tutor and tutee, while improving the cognitive skills of both in the subject taught (Walther 1976; Cloward 1966; Kopp 1972; Thomas 1976). The federally-funded Upward Bound program, which for almost two decades has sought to attract and to prepare high-risk students for entry to postsecondary education, has evidenced success in using college students to tutor secondary students, in increasing motivation to persist in school, and in stimulating students to enter postsecondary education; there is no evidence that the presence of these college tutors affected the quality of academic work (Burkheimer, French, Levinsohn, and Riccobono 1977). The tutor-counselors of the Upward Bound programs are usually not high-risk students themselves, and they are in the main not minority students; nevertheless, they prove stimulating models despite the ethnic difference between the majority of tutees and the majority of tutors. Perhaps the reason for lower gains in the Upward Bound program than in the previously cited elementary-secondary tutorial program lies in the nature of what was measured; in the secondary-elementary efforts, skill gains in reading and other basic skills were reported, whereas in the Upward Bound programs, grades and academic credits taken and passed were used as measures. The clear motivational gain in the Upward Bound program—71% of the Upward Bound students went to college, and only 47% of the control group went on—may be explained by the use of college settings for the program, and the provision of a clear goal beyond secondary school. The lesser effectiveness of the motivational model in the secondary-elementary program can be explained by the unappealing settings, which were not educational sites; the ambiguously perceived identity of the tutors, as models to be evaluated; and the tutors own lack of clarity about educational values and goals.

Self-actualization within the academic experience demands, then, an opportunity to develop a broad range of competencies, training in self-evaluation, and the help of models of behavior. One of the better ex-

amples of what Sprinthall called a dual curriculum of academic and psychological growth is the Achievement Competence Training Program (ACT), developed by Research for Better Schools in Philadelphia in 1974. The ACT program was a semester course that taught middle school youth a six-step behavioral strategy for developing personal awareness and competency in task completion. The tasks could be academic or nonacademic; the six steps were study self, get goal ideas, set a goal, plan, strive, and evaluate (Hill et al. 1972). These learning and performance strategies are easily integrated into disciplinary curricula. An excellent source book for the use of small cooperative groups and large groups in developing task competency as well as psychological awareness in academic settings is Joy Johnson's *Use of Groups in Schools* (1976). In elementary schools, where counselors are scarce because of the more apparent need for guidance in secondary education, some interesting academic designs have been realized that integrate self-actualization concerns and the classroom: William B. Stafford's *Schools Without Counselors: Guidance Practices for Teachers* (1974) offers a review of strategies that can be modified for higher-level instruction. The Project Discovery curriculum being used by the Williamsburg, Virginia, schools incorporates a well-articulated blend of academic competencies and psychological skills; it is currently a two-semester class that prepares students for a wilderness experience, and in the process teaches the competencies of task performance and self-evaluation. Its format allows counselors and teachers to interact, and parents are drawn into the learning experience with the students; the interactive model of counselors, teachers, and students was developed by the Philadelphia Child Guidance Clinic Family Therapy division (Williamsburg-James City County Public Schools 1982).

Social Reconstruction, Relevance, and High-Risk Students

High-risk students, whether of high, middle, or low socioeconomic level, should be brought into an active relationship with the issues and problems surrounding home and community life. The educator must know how to protect students from emotional and physical jeopardy while exposing them to the tensions of actual social realities: education is to prepare one for an active, effective life, and must not be confused with the dedication and risk that comes after one is prepared. Allowing the social environment to be a school is especially valuable in integrating into the students' educational life the psychological and behavioral variables of task motivation, task performance, cultural aspiration, and locus of control and self-esteem. Making the students' home community a laboratory for social science exploration, the study and practice of ecology, and humanistic inquiry into the thought and customs of their fellow citizens will build for the students a path that promises a meaningful present and future. Learning objectives can help them improve the community in tangible ways while they develop the skills that will be useful in any future community. Similar goals were part of the Foxfire

experiment, where students learned language and communication skills while helping preserve the cultural tradition of their rural community (Tanner and Tanner 1980). In Philadelphia, schools in the worst urban blight area developed an educational plan where community adults and children worked together to make the community a learning site; gardens became science projects, juvenile crime became a social science arena in which students visited courts and analyzed motivation and treatment of offenders. Community leaders were omnipresent, enlisting students in activities that ranged from building improvement to the care of elderly citizens. The school building was a place for individualized learning of basic skills and for discussion of what was experienced in the community; the concept was that of the "scattered site" school, where several buildings were located throughout the community to enable more community adults to interact with the youth and to make the community in all its parts more accessible to the student (Goldfarb, Brown, and Gallagher 1974).

The weakness of socially-based learning projects is the lack of preparation usually given to the curriculum that will guide the community learning. Neither the students nor the adults are primed for or supported by measurable learning objectives. Yet, the dynamic potential of these experiments of the 1960's can be informed and improved by advances in individualized instruction, which can create guided-design curricula and continuous progress instruction.

The distinctive learning characteristics of culturally disadvantaged students legislate such activity. These students work better with tangible problems, can approach situations with the inductive mind, and function well in external projects that demand physical and visual ability (Riessman 1962). The social reconstruction of one's community, practiced in an educational manner with limited, coherent goals, can offer the kind of relevance that will integrate learning into a lifelong practice. Paulo Freire wishes education to avoid problem-solving; rather, he would have schools aid students in "problematizing" the social realities of their environments so that they burn to change the inequities (Freire 1973). We recommend instead that students address coherent problems while guided by teachers, understanding that neither the students nor the schools alone can change a social-economic system, but that students and school can have a definite impact on the quality of a community's life.

Correspondingly, involvement in the community can have positive benefit for the character of the high-risk student. Delinquent students show a radical change in behavior through programs that involve them in constructive activities within their home communities (Marvin 1976; Law Enforcement Assistance Administration 1979; Hawkins and Wall 1980). Thoughtful cooperation with public and private social agencies, businesses, and others in a community can create a mutually enriching experience for everyone (Ringers 1976).

The intellectual preparation or "dramatic rehearsal" that will enable

students and adults to work together cooperatively and effectively can be realized through what Lawrence Metcalfe calls the building of social models of "preferred futures" (Metcalfe and Hunt, 1970). The opportunity to actually work toward a preferred future adds to Metcalfe's idea a dimension that is critical when attempting to involve high-risk students in a thoughtful deliberation of their social reality. The use of a curriculum in problem solving, which presents hypothetical situations that must be resolved, can help prepare students for a social reconstruction curriculum; it will give them an organizing idea of social events that will help create a larger horizon of meaning for the particular tasks in which they engage (Thomas 1977). A modest project can be a semester activity for a social science, science, or English class; work assignments can be "homework" when class-time is a constraint upon environmental education. Community cooperation with the project can assure that involvement beyond school time occurs in a guided manner.

The citizenship of the student is furthered through social interaction that is productive and informed; by 1975-1976, it was found that twenty-seven states supported some form of school-community cooperative education (Education Commission of the States 1979). The shifted perspective that a school's administration and faculty (as well as its student body) can experience through community-based projects is that education is a necessary leavening for every community function, and that the school is not an isolated domain, but a potential leader in the public life of the area it serves.

There are two major errors that a secondary or postsecondary institution can make to warp the relevance of education for the student as citizen: it can demonstrate through its own governing practices an unethical, irresponsible model; and it can treat education as a sorting process for placing students into the community "as it exists." The first error is discussed as the "hidden curriculum" in the choice of learning content, instructional behavior, administrative policies and practices, and in every other transaction in the school that is discriminatory, unfairly authoritarian, or reflective of social inequities of the broader society (Apple 1979; Ehman 1980). The second error is committed through tracking, especially in the creation of a vocational curriculum that seeks to train lower ability students for the "jobs available" in the community. Our recommendation about vocational and career education curricula will stress that *all* students should have career exploration opportunities at worksites in secondary and postsecondary education, but that *no* student should be given a vocational major.

Analyzing this recommendation is vital, and will provide a transition to all our recommendations that develop a model of secondary and postsecondary education for the high-risk student. In two major longitudinal studies of high school graduates from vocational, general, and college preparatory tracks, it was shown that vocational graduates have the lowest postsecondary aspirations, and that their employment

ranks below general and college preparatory students in status and income (Grasso and Shea 1979; Creech 1977). Moreover, the Grasso and Shea study showed that vocational graduates had the least knowledge of career opportunities. On the other hand, a study of the high school graduating class of 1972 pointed out that when work and study are combined, locus of control becomes more internal, and self-esteem grows (Conger, Dunteman, and Dunteman 1977). The best way to educate individuals of low cognitive ability to insure their employability is to raise their cognitive ability while making them aware of career opportunities within the culture. Involvement of students in intern programs and other work experiences during their academic study will be beneficial for their development of personal agency and the perception of relevance between academic study and practical reality. The Academy for Career Education in Philadelphia, a program developed at Olney High School, comes closest to the ideal model, although its faults typify the problems of realizing a responsible experiential education at the present time. Olney used the "career cluster curriculum" idea, where students would visit a host of worksites within a field that was attractive to them; after spending time in several of the sites, they would then select one to intern in for a semester. The concept promoted the creation of an "open, contingent path," for one could see where one began in a field, and where it led. This career study and internship continued in cycles over the three years of high school. Academic courses permitting, a college preparatory education was taken. However, a laxness in the academic area permitted social-studies credit to be given for nonrelated work experience, and conflict between career counselors and academic instructors interfered with a thorough absorption of the relationships between work and knowledge, the crux of such a dual curriculum (Smith and Theophano 1976). The Academy was a separate program within the school; thus it created a growing rift between its members and regular faculty and students. Program students reported a sense of isolation from the main student body. If the career academy idea could merge with the comprehensive high school curriculum, and if counselors and faculty comprehend the potential richness of their cooperation, then this model would be a most effective option for keeping high-risk students in the system. However, more care must be taken at the worksite to include employers in the *educational* process. We have not yet seen a text or curriculum that helps employers set competency-oriented goals for the students in their internships and work experiences, or that helps the students use their immediate jobs to generalize to other fields. Until such a curriculum is established, experiential education will not be able to carry out its promise to the students and enable them to gain a sense of control in their lives and to develop a congruence in their thoughts and actions (Weed and Ramsey 1979). Similarly flawed models of academic-career exploration curricula were reported in Charleston, West Virginia, and Oakland, California, public schools; both experienced the problems

of divisiveness between program personnel and students and the mainstream institution; both had similar failings in counselor-faculty relations; and both neglected the academic viability of the work experience (Anderson and Drucker 1976a, 1976b). Nevertheless, if the critical variable of the open, contingent path to a known future is to be generated, such work/study programs must become an integral element in our secondary and postsecondary education.

Transitional Programs for Those Who Wish to Re-enter the Educational System There must be a network of reentry services to counsel and educate individuals who wish to finish a curtailed elementary, secondary, or postsecondary education. Adult Education Centers have met this need in most communities by individualized programs to raise cognitive skills, and with a competency-based high school equivalency degree (G.E.D.) (Gunn et al. 1981). Outreach programs of high schools, community colleges, and four-year colleges also have provided self-enrichment programs that create an interest for continuing within the educational system (Center for Research and Development in Higher Education 1979). Educational Opportunity Centers exists in many metropolitan areas to counsel, guide students who wish to re-enter the educational system towards appropriate testing, and carry out other details that might discourage their continuation (Carnegie Foundation 1977).

These re-entry and community education agencies must form closer operational program relationships with the secondary and postsecondary institutions in the community so that redundant efforts in attracting and counseling dropouts and adult students are curtailed. Failure to coordinate outreach efforts leads to a lack of articulation between skill training in Adult Education Centers and postsecondary institutions, and competing public relations and counseling services among the E.O.C.s and the educational institutions themselves. Consortial relations between all these parties will improve curricula, and enable more responsible experiments in attracting and keeping high-risk and adult learners. The success of the federally-funded Upward Bound Program in motivating students to enter postsecondary education lies in part in its being located within the colleges' support service program; its tutors are all college students, trained by professional staff. It clearly benefits from the continual relationship to the colleges' academic programs (Burkheimer, French, Levinsohn, and Riccobono 1977).

The Adult Education Center is not compelled to limit its educational programs to certification preparation, and thus it is the most responsive agent in the local community for adults who simply wish to upgrade cognitive skills. The Adult Education Center also is sensitive to community education programs for health needs and for aiding in the retraining of adults who are affected by employment layoffs and industry shutdowns. An independent place must be maintained by Adult Education Centers because of these missions, which are related directly

to the welfare of the community, separate from certification or profit issues. A consortial relation between Adult Education Centers and the certifying educational institutions at the secondary and postsecondary levels can stimulate the latter to join more actively in public service functions with the professional assistance available to them. The postsecondary schools can find new student readily by working more closely with Adult Education Centers in cooperative course offerings, and other joint educational ventures. By establishing learning sites in the places of work, and near the homes of potential students, in conjunction with the current outreach efforts of the Adult Education Center (Gunn et al. 1981), the postsecondary school may ease the time and mobility constraints that have been dominant factors in keeping dropouts from returning to school.

Retraining Programs for Dropouts Federal Manpower and CETA programs have helped minority youth, especially, find employment at higher salary levels than they would have had without additional training (Grasso and Shea 1979). However, studies have shown that the most effective element of the training programs is the cognitive skill development (Walther 1976). The recent consolidation of youth training programs by the federal government gives as a major part of its rationale the need to provide more emphasis on classroom time for cognitive development (Executive Office of the President, Office of Management and the Budget 1981). There is a compelling reason in these facts to insist on close cooperation between CETA and Manpower programs and established educational institutions in a community. Learning laboratoriaes that are permanent fixtures in a school can provide the cognitive remediation (Walther 1976), and the proximity to an educational atmosphere can stimulate out-of-work youth to explore the beneifts of continuing their education.

IV. A PROGRAM MODEL FOR THE EDUCATION OF HIGH-RISK STUDENTS

A model for educational policy should integrate a policy .dea into a concrete recommendation. A model should guide the actual building of a system. We have developed in the preceding pages the theoretical elements that can direct the design of a sound educational system for the high-risk student at the secondary and postsecondary levels: the educators must integrate concerns of cognitive ability, task motivation, cultural aspiration, task performance, and locus of control and self-esteem into every dimension of the school's operation. In our discussion of the major elements of the academic curriculum, we have shown how these concerns must guide instructional methods, learning settings, learning content, suggested sources for further study, and the acquisition of materials. In the model that follows, we will insure that a total system is depicted to generate the quality of education that may dissolve the need for the concept of "high risk."

The model will have four dimensions: (1) curricular concerns and evaluation practices; (2) school organization and administration; (3) personnel and student concerns; and (4) access to and articulation with the community and other learning institutions. After each recommendation, programs that either intend to or that have implemented the idea will be cited, as well as any other studies that proved valuable (including those with which we disagree) in leading us to the positions stated in the recommendations.

Curricular Concerns and Evaluation Practices

- All students, both high-risk and traditional, should be exposed to the key ideas, contributions, and methods of investigation that are the foundation of Western civilization; without a familiarity with the finding of these major division of knowledge they will not be competent to contribute to the culture independently, nor will they be able to deal with others from a common base of knowledge and understanding (Tanner and Tanner 1980; Carnegie Foundation 1977; the Chronicle of Higher Education 1982; Moen 1979).
- The integration of diverse cultural traditions into the curriculum will strengthen the commitment of the minority student to the educational process, and will benefit the ability of the nonminority student to understand and empathize with others (Mann 1979; Hunter 1974; New England Teachers Corps Network 1976; Abrahams and Troike 1972).
- Tracking students into vocational, general, and academic sequences ignores the balance of intellect and practical experience that every human being needs to develop fully (Tanner and Tanner 1980; Bruner 1968; Sprinthall 1971).
- Without a core of common learning shared by all students, specialization will lead to a noncohesive society; democracy is imperilled by major intellectual, socioeconomic, and behavioral inequities (Carnegie Foundation 1977; Tanner and Tanner 1980).
- The cultural traditions presented to high-risk students should be balanced with experiential projects that explicitly develop relationships between their world and that of the Western cultural tradition (Bruner 1968; Hunter 1974).
- The materials that introduce Western culture should be employed in courses teaching cognitive skills, even remedial courses; content knowledge and skills cannot be artificially separated. Even secondary and middle school students can deal with the research processes and results of the sciences and humanities if guided design approaches are used in their presentation (Wales and Stager 1978; Bohr and Bray 1978).
- Competency testing that is limited to only a few skills can only serve to label ranges of differences among students in a stereotypic manner. A complete educational program should address the complete range of human abilities as the basis for effective change in a student's intelligence and performance (the Chronical of Higher Education 1982; McKeachie 1978).

- The academic curriculum, as well as extracurricular projects and programs, should be coordinated in learning outcomes—skills, content, and values—so that a student's opportunity for growth is maximized through teacher cooperation in a "learning efficient" environment (Oregon School Districts 1973).
- Work dealing with verbal communications skills—writing, reading, listening, speaking—should be planned and monitored as an integral unit, not as a series of independent skills (Miller 1978; Gwin and Downey 1980).
- No student should be given a certificate for a limited range of competencies, since all competencies are vital for human development (Carnegie Foundation 1977).
- There should be no alternative schools or "special population" programs; all students within an institution should identify with the mainstream. Separatist programs within an institution are disruptive for everyone, and create an artificial environment for their participants (Smith and Theophano 1976; Anderson and Drucker 1976a, 1976b; New York Center for Field Research and School Services, New York Univ. 1973a; 1973b; Portland Public Schools 1974; Landsberger 1968; Zanoni 1980).
- In the short run, special programs may motivate students and produce sudden apparent increases in skill levels. In the long run, however, these gains disappear—many are due to the "Hawthorne effect"—and the students in special programs learn to become dependent on special help rather than independent self-actualized learners (United States Office of Education 1973; Underwood 1980; Landsberger 1968; Dweck 1975; Gordon and Fahrer 1976).
- Although foreign speakers with acute language problems will need special classes in English, foreign speakers should be placed in regular courses as much as possible. The use of teachers from specific ethnic communities (e.g. Hispanic) will ease language problems within these regular courses and provide a rich cultural diversity for all students (Brown, Rosen, Hill, and Olivas 1980; UNESCO 1975).
- High cohesion within a student body or a special group (such as high-risk students) should not be a goal; productivity is possible without team spirit. The problem with team spirit is manifold; it overwhelms individuality and thoughtful care in specific tasks, interferes with self-pacing, and can work against high quality goals (Schachter et al. 1951; Landsberger 1968; Smith and Theophano 1976; Portland Public Schools 1974).
- The mix of ethnic groups within learning situations should be as proportionately in balance as possible; an equal distribution of backgrounds enhances academic achievement (Crain and Mahard 1978).
- Learning laboratories are useful for both high-risk and high-ability students who need to practice and perfect specific skills; students of

different levels should be mixed in laboratories in order to prevent the stigmatization of any one group (Awardy and Chafin 1980; Smith 1980; Clarke et al. 1976).

- When students first learn a basic skill, individual methods and settings are best; when they have mastered the skill, a group setting is most productive for refinement of it (Zajonc 1965).
- Tutorial assistance should not be relied on where other instructional avenues are available and more appropriate, since tutorials often promote dependency and a feeling that success is possible only when special help is provided (Klosterman and Frankel 1975; Skinner 1968).
- Peer tutors can stimulate their fellows of the same age and younger. Skill gains are invariably reported on both sides, and psychological and behavioral benefits are often present. The economic gains are enormous (Rosenbaum 1973; Kopp 1972; Thomas 1976; Cloward 1966).
- Group tutorial sessions are cost efficient, and can include one-to-one and one-to-two pairings if peer tutoring is practiced; group sessions are preferable because they more closely approximate the situation, pressures, and benefits of the normal classroom setting (Eddy 1979; Bohr and Bray 1979; James and Sanderson 1979).
- A vocational track does not guarantee employability, knowledge of a variety of careers, cultural aspiration, or a healthy self-concept (Grasso and Shea 1979; Creech 1977; Atkinson and Raynor 1978).
- Students must not be encouraged to select career paths before they have explored many alternatives at various levels of study (Atkinson and Raynor 1978; Allen 1974; Smith and Theophano 1976; Tiedeman 1966).
- Career education should be linked to active visits to job sites and to internship experiences. Work and study improves one's sense of agency in the world and can provide an opportunity to tests ideas in real situations as well as to reflect on one's vocational experiences. Career education should not become vocational training for a narrowly defined occupation (Smith and Theophano 1976; Conger, Dunteman, and Dunteman 1977; Allen 1974; United States Office of Education 1972).

School Organization and Administration

- Once an educational policy is in place, curricula and instructional methods which can implement that policy should be identified from the literature, and applied. Then evaluation should be used to steer a course within the chosen path, given the constraints and climate of the particular school. One should augment, modify, and discard when unavoidable, but it is a thoughtful evaluation of what one has decided upon that should be pursued, not a competition between diverse options. The school is not a research and development corporation (Cronbach et al. 1980).

- All of an institution's programs for high-risk students (both academic and counseling programs) should be centrally supervised, coordinated, and evaluated. Evaluation should be based on both empirical data (e.g. test scores, grades, attrition figures), and formative data from staff and students should be collected in a manner that allows year by year comparisons, and should be used in constant efforts at program improvement (McFadden 1979).
- The school can become involved in the problems of its community; experiential educational projects can involve students and faculty in community improvement (Marvin 1976; Law Enforcement Assistance Administration 1979; Hawkins and Wall 1980; Tanner and Tanner 1980).
- Parents and community leaders should be involved in the activities and aspirations of the school (Hawkins and Wall 1980; Coates 1974).
- The location of educational sites throughout the community can further citizen involvement in the school's activities, and may encourage those youths and adults who have dropped out to reenter the system (Coates 1974; Fund for the Improvement of Postsecondary Education 1981; Center for Research and Development in Higher Education 1979).
- Every educational institution must think through the needs of the populations it serves. The locations and hours during which libraries, learning laboratories, classes, counseling centers, etc. are available may cause students to drop out of the system, and prevent others from ever entering it (Center for Research and Development in Higher Education 1979).
- Students should be given clear rationales for assignments, and work should be closely and continuously monitored; this enables students to see the future relevance of their work and allows them to perform it conscientiously. Evaluation of the students' education should be explicit, and shared with them honestly in order that they may see the effect of their past work and learn how and where to improve. Ultimately this will enable students to manage their own learning, thus bettering their self-concepts (Gagne 1974; United States Office of Education 1972; Bailey 1971; Tuckman 1970; Atkinson and Raynor 1978; Erikson 1968).

Personnel and Student Concerns

- Like every other student, high-risk students must have the opportunity to fail or succeed, and the grading system must provide these options (Dweck 1975).
- The evaluation of cognitive ability must extend to the students' skills in adapting to new situations, not only to abstract capacity; behavioral measures that are direct and indirect will provide evidence on their growth in this area (Chronicle of Higher Education 1982; Brody and Brody 1976).

- Students should acquire a vocabulary that supports a complex personal identity; students should learn to evaluate themselves in terms of their skills, values, and knowledge (Smith and Meux 1970; Erikson 1968; Superka et al. 1976).
- High-risk students should be steered toward "medium risk" projects that are challenging yet feasible (given their skill levels); the teacher must be wary of the over-zealous student as well as of the unmotivated one (Atkinson and Raynor 1978).
- Teaching students how to use the resources of the community will make them self-directed learners beyond school hours (Coates 1974; Weed and Ramsey 1979).
- Every academic task must accommodate the individual blend of talents each student possesses, and find the interests that will shape the student's efforts. The educator merely sees the student passing by, yet must seek to make this passage beneficial to the student's past, present, and future life (Sprinthall 1971).
- If students can be stimulated to think about their own learning processes, they will become self-governing and self-correcting (Smith and Meux 1970; Markman 1979).
- What makes high-risk students different is chiefly their level of cognitive ability, task performance, and socioeconomic status. These the educator must seek to change (Riessman 1962; Thornton 1976; Bachman, O'Malley, and Johnston 1978; Beal and Noel 1980; Shaughnessy 1977).
- Evidence indicates a low correlation between the student's self image concept and academic success; thus programs should not assume that attention to self-concept exclusively will lead to academic improvement (Bourn 1977; Gottfredson 1980).
- The best preparation for those who work with high-risk students is a solid liberal-arts background; such teachers and administrators can effectively improve students cognitive abilities while serving as models of broadly educated adults. The need for these cognitive abilities and for a broad cultural appreciation in students necessitates such personnel; the current relegation of high-risk students to programs planned and run by personnel trained in guidance and counseling de-emphasizes the essential core of knowledge that the high-risk student needs most to succeed (Boylan 1977).
- The counselor must work cooperatively with the academic instructor to design educational settings that will enhance self-actualization in the student; this will bring the counselor into the classroom, and the teacher into the counseling session (Grizzard 1981; Sprinthall 1971; the Chronicle of Higher Education 1982).
- The teacher of the high-risk student should be given ample time to study and to develop a curriculum, with a team of peers, that is behaviorally and psychologically sensitive to the characteristics of these students (Tanner and Tanner 1980).

- Secondary and postsecondary teachers and counselors must meet together to plan a well-articulated path for student progress across educational levels (the Chronicle of Higher Education 1982; Menacker 1975; Carnegie Commission 1973).
- Teacher training for urban high-risk students ordinarily stresses intensive practical experience in the school and community in order to familiarize them with the socioeconomic milieu. The cultural learning that this strategy provides for teachers is invaluable; however, it is important to balance this with theoretical analysis of the behavioral and psychological traits of high-risk students, traits that cut across social-economic class lines (Carnegie Commission 1973; Toledo University, College of Education 1969; Rademaker 1969; California State College, Hayward 1968; Stryker 1965).
- The life of the mind should be highly valued among all administrators, teachers, and counselors at all school levels, and this value should be reflected in all their words and acts. On the one hand, working with high-risk students often breeds a belief that these students have little to do with ideas, and that instruction of them should stress nonintellectual pursuits; and, on the other hand, the personnel who are responsible for the education of high-risk students are themselves affected by this denigration of the student in their own neglect of theoretical perspectives (Highet 1950; McKeachie 1978; Carnegie Foundation 1977).
- The administration must treat counselors and teachers as peers in solving a common problem. The climate of the school must be raised to that of a permanent search for solutions; this professionalism can be promulgated by various measures—keeping a current collection of professional literature, organizing conferences and workshops, and so on—but, most importantly, by making the teachers and counselors part of the decision process (Pruitt 1979; American Association of University Professors 1973).
- Teachers and counselors must realize that they are models for the student's behavior. They must act in a manner where words and acts are congruent, where their bearing and values provide an incentive for the student's cultural and educational aspiration (Carnegie Foundation 1977; Highet 1950).
- Motivation of both teachers and counselors depends on a public recognition of their effort. Work in improved pedagogy and curriculum development should be valued as highly as other research, administrative, or extracurricular activities. Since salary often can not be used directly to motivate these personnel, perquisites must be distributed according to a system designed to encourage beneficial activity (Carnegie Foundation 1977).
- Reappointment reviews leading to tenure should be based upon hard empirical evidence of student improvement, and regular reviews of teachers and counselors should be conducted even for those on contin-

uing contracts (American Association of University Professors 1973; McKeachie 1978).

Access to and Articulation with the Community and Other Institutions

- Institutions should not accept students who cannot meet their criteria for performance unless they provide compensatory services to give these students a realistic chance for success (the Chronicle of Higher Education 1982; Beal and Noel 1980; Medsker and Tillery 1971).
- Learning sequences in the skills and ideas of the major divisions of knowledge should be explored with care so that secondary schools can more effectively develop the bases of a postsecondary education for the student, and so that postsecondary institutions can plan a thorough, enriching sequence of courses in the humanities, social sciences, and natural sciences (the Chronicle of Higher Education 1982; Menacker 1975).
- Competing programs to aid high-risk students waste resources and create hostilities among potential educators. Facilities and faculty can be shared, and educational programs can be articulated among various institutions and levels with the aid of governmental support that would otherwise be spent on redundant programs (Executive Office of the President, Office of Management and Budget 1981; Smith 1980).

Policies and Values in the Treatment of High-Risk Students

In deciding on policies for treating the high-risk student, an institution must realize that its decisions affect all its students, and, moreover, that its policies help to form society's attitudes toward the individuals with whom the institution deals. Institutional standards and requirements affect the education of all students within the school; when these rules are motivated solely by the desire to govern the behavior of high-risk students, the rules may have negative effects on those with different needs. And, just as high-risk students are not an independent group within the school, the school itself is not independent of the larger society. Certain programs and evaluation practices label the student for others beyond the school; if students are forced from the system because of practices that they are unwilling or unable to endure, they must find another place in society, a place open to those without the educational advantages the school system can provide. The school system, and the institutions which make it up, must then accept part of the responsibility for the students' fate. Many schools are presently reexamining their policies governing high-risk students, and, in the process, questioning the values on which these policies are based. Some secondary school systems have instituted means of measuring student competencies to insure that minimal levels are achieved; a number of colleges have moved from policies of open admission of high-risk students to more selective standards. On the whole, this scrutiny of existing practices is healthy—self-examination is always beneficial; there is both good and bad in current programs. Higher expectations and the democratization of education,

particularly at the college level, have brought more and more high-risk students into schools for longer periods, and many schools managed to meet this challenge with speedily designed special programs whose long-range consequences were only glimpsed dimly at the time. The result has all to often been a piecemeal treatment of the high-risk problem, a multiplicity of overlapping programs with divergent approaches and goals, a patchwork that can be costly and bureaucratically inefficient for the school and confusing and educationally inefficient for the student.

The danger in the current reexamination of policies is that educators may, in their desire to rid the school of the ill effects of unseccessful efforts, fail to recognize those which are worthwhile, or, even more unfortunately, that they may render judgments on specific programs without paying careful attention to the values and beliefs those programs were originally instituted to embody. It is essential, then, to remember that the practical operation of an educational institution cannot be separated from its philosophical goals and from its responsibility to society at large. The parts together make up the whole; divorcing thought, word, and deed (or philosophy, policy, and practice) leads to disaster.

Most educators, we believe, would agree with the proposition that the responsibility of the American educational system, in total, is to provide all citizens with an effective opportunity to develop their minds—their abilities and knowledge—to their fullest capacity. To insure that this opportunity is real and available to all requires that all parts of the system work together, coordinate their efforts, and share their solutions (and failures) to common problems. Since the "system" to which all institutions belong is a loose and unofficial one, this cooperation requires each individual institution to take its societal responsibilities seriously, to accept its share of common problems and burdens that it might wish to avoid. If each school decides to go its own way and let the others deal with the high-risk student, in the end that student is ignored. Educational institutions must, individually and collectively, make provisions for students at all levels, provide avenues for reentry by those who have left the system, and take steps to insure that continuing education is available to those adults who need and desire it. We trust that this will happen: our nation, and its schools, is committed to the ideals of democracy—which requires an educated citizenry—and to the equality of opportunity which is essential if all our citizens are to be educated. If these traditional values are kept in mind when making decisions concerning the education of high-risk students, the policies which emerge will be fair ones. And if the essential needs and characteristics that separate the high-risk from the more successful student, characteristics we have attempted to analyze here, are taken into consideration, the resulting policies will be both fair and effective.

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